

facilitating persistence of manifests associated with the multiple software artifacts, the manifests being declarative descriptions of the multiple software artifacts.

19. One or more media as recited in claim 18 further comprising examining the manifests to discover information about the multiple software artifacts.

20. One or more processor-readable media having processor-executable instructions that, when executed by a processor, perform acts comprising:

examining multiple self-describing software artifacts persisted on a computing system to gather information about the artifacts;

performing verification on the multiple self-describing software artifacts;

reporting results of the verification.

21. One or more media as recited in claim 20, wherein the performing act comprises verifying that that all dependencies of software components installed on a computer are met, the software components being composed of one or more self-describing software artifacts.

22. One or more media as recited in claim 20, wherein the performing act comprises verifying that processor-executable instructions represented by one or more self-describing artifacts remains unaltered.

23. One or more media as recited in claim 20, wherein the performing act comprises verifying that an application is correctly installed in a computer, the application being composed of one or more self-describing software artifacts.

24. One or more media as recited in claim 20, wherein the performing act comprises verifying that a known faulty or malicious program is not installed on a computer.

25. One or more media as recited in claim 20, wherein the performing act comprises verifying that an application and all of its constituent components and dependencies are accessible from a computer before the application is installed on the computer, the application being composed of one or more self-describing software artifacts.

26. One or more media as recited in claim 20, wherein the performing act comprises verifying that an application is installable on the computer before loading components of the application onto the computer.

27. One or more media as recited in claim 20, wherein the performing act comprises verifying that installation of a new application will not conflict with existing applications, the applications being composed of one or more self-describing software artifacts.

28. One or more media as recited in claim 20, wherein the performing act comprises verifying that an application can be removed without breaking dependencies from other applications, the applications being composed of one or more self-describing software artifacts.

29. One or more media as recited in claim 20, wherein the performing act comprises verifying that an application conforms to a predefined local policy, the application being composed of one or more self-describing software artifacts.

30. One or more media as recited in claim 20, wherein one or more self-describing artifacts compose an application, which application has process-executable instructions that may be executed on a computer when the application is loaded into a memory of a computer, the performing act comprises optimizing the process-executable instructions of the application to improve the performance of the instructions of the application.

31. One or more media as recited in claim 20, wherein one or more self-describing artifacts compose an application, which application has process-executable instructions that may be executed on a computer when the application is loaded into a memory of a computer, the performing act comprises analyzing the process-executable instructions of the application to detect potential errors in execution behavior or operation of the instructions of the application.

32. A data structure embodied on one or more processor-readable media, the structure comprising:

multiple software artifacts comprising processor-executable instructions representing operating system components or applications, such components and applications being installed on a computing system;

manifests associated with the multiple software artifacts, the manifests being declarative descriptions of the multiple software artifacts.

33. One or more media as recited in claim 32, wherein one of the manifests is a system manifest comprising declarative descriptions of the multiple self-describing software artifacts.

34. One or more processor-readable media having processor-executable instructions that, when executed by a processor, perform acts comprising:

obtaining a copy of an offline "system image" of a software-based computer, the system image representing the content and configuration of software components installed on the computer, wherein the installed software components are represented on the system image as self-describing software artifacts;

analyzing the self-describing software artifacts of the offline system image;

reporting results of the analyzing act.

35. One or more processor-readable media as recited in claim 34 further comprising identifying, based upon the analyzing act, the software components in the offline system image.

36. One or more processor-readable media as recited in claim 34 further comprising:

identifying based upon the analyzing act, the software components in the offline system image;

determining whether the identified software components in the offline system image are functional.

37. One or more processor-readable media as recited in claim 34 further comprising:

identifying based upon the analyzing act, the software components in the offline system image;

determining whether the identified software components in the offline system image contain defects.

38. One or more processor-readable media as recited in claim 34, wherein each of the self-describing software artifacts has an associated persisted manifest comprising declarative descriptions of the manifest's software artifact.

39. One or more processor-readable media as recited in claim 34, wherein each of the self-describing software artifacts has an associated persisted manifest comprising primarily declarative descriptions of the manifest's software artifact.

40. One or more processor-readable media as recited in claim 34, wherein each of the self-describing software